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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,444	05/03/2005	Michel Capron	015291-160	1506

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BUCHANAN, INGERSOLL & ROONEY PC  
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EXAMINER
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MAKI, STEVEN D

ART UNIT	PAPER NUMBER
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1791

NOTIFICATION DATE	DELIVERY MODE
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11/05/2007

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com  
debra.hawkins@bipc.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/510,444	<b>Applicant(s)</b> CAPRON, MICHEL	
	<b>Examiner</b> Steven D. Maki	<b>Art Unit</b> 1791	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 13-24 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>032607, 040506, 100704</u> . | 6) <input type="checkbox"/> Other: ____.  |

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- 1) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 2) Claims 13-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 13 describes "expandable, flexible lightweight spacers or packing pieces" (emphasis added). The scope and meaning of "expandable" is ambiguous. The specification describes using paper for the packing piece 5 so that the packing piece has the same expansion as the facing paper when moist. The specification also describes using other materials such as metal, plastic, organic material and composite material. These alternative embodiments are described in dependent claims 15 and 17. It is unclear if "expandable" packing pieces in claim 13 is limited to "expandable" materials such as paper so as to exclude other materials (e.g. metal), which do not expand when wet. In other words, it is uncertain if "expandable" in claim 13 excludes or includes each of the materials described in dependent claims 15 and 17. If "expandable" excludes at least one of the materials in claims 15 and 17, then claims 15 and 17 are inconsistent with claim 13 and is therefore indefinite. If "expandable" includes each of the materials in claims 15 and 17, then "expandable" in claim 13 appears to be used in a manner inconsistent with the specification. For example, paper but not metal is expandable when moist. As to claims 13-18, it is suggested to delete --expandable--.

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As to claim 13, it is unclear how many bonding steps are required. Since the active step of "bonding" is described twice, the literal interpretation of claim 13 is that two bonding steps are required. However, it appears that applicant does not intend to limit claim 13 to two bonding steps. In claim 13 line 13, it is suggested to change "bonding said packing pieces" to --wherein during said bonding step, said packing pieces are bonded--.

As to claim 13, it is unclear what creates the imprint in the adjusting step at lines 15-16 of claim 13. As a related matter, there is no antecedent basis for "the middle of the imprints left by said packing pieces" on the last two lines of claim 13. In claim 13 lines 15-16, it is suggested to change "and imprint created therein" to --an imprint created therein by the packing piece--.

In claim 14, the description of the region is ambiguous. In claim 14 lines 2-3, it is suggested to change "in a region extending from an end of a hardening belt and said knife means" to --in a region extending from an end of a hardening belt to said knife means--.

In claim 19, the affect of "comprises the following means" (emphasis added) on the scope of claim 19 is unclear since lines 6-20 of claim 19 describe "bonder follower device", "guide sheet", "packing piece removing means" and "cutting means" *instead of* "bonder follower means", "guide means", "packing piece removing means" and "cutting means". Furthermore, the limitation of "for accurately bonding on-the-fly said packing pieces to the bottom of said paper sheet for roughening and pre-marking said paper

sheet" (emphasis added) is ambiguous and confusing such that is uncertain what means / apparatus structure is required.

As to claims 20 and 21, it is unclear what the "pulse sensor" senses.

In claim 22, there is no antecedent basis for "said table" and "said table, beaters, projecting points and guide". Also, the relationship between "beaters", "projecting points" and "guides" and the remainder of the claimed subject matter is unclear.

### **Allowable Subject Matter**

**3) Claims 13-24 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.**

Page, directed to method and apparatus for manufacturing wallboard, discloses tensioning a top sheet 11 with tension rollers 13, 14; attaching a supporting member 21 ("packing piece") such as a paper strip using a securing means such as staples from a stapling machine 22; depositing gypsum plaster on the top sheet using delivery spout 13; moving the top sheet over table 10 wherein an imprint is created in the top sheet by the supporting member 21; applying a bottom sheet on the deposited gypsum plaster to form a composite strip; allowing the composite strip to set while moving over a conveyor 19; removing the supporting member 21 using removing means such as a magnetic device 23; passing the set composite strip over a conveyor 20; and then cutting the set composite strip at the imprint using cutting knives 27. In the illustrated embodiment, a stapling machine is used. At page 2 left column lines 62-66, Page expressly teaches that the supporting members may be secured to the top sheet using adhesive instead of staples.

Roos (US 2,246,987), Ali (US 5,198,052), Watras (US 2001/0044016) and Capron (US 2006/0144497) disclose method and apparatus for making gypsum board having four tapered edges. Capron (US 2006/0144497) is not available as prior art.

Raney (US 2,600,322), Sprunck et al (US 3,108,028), Collins et al (US 5,200,020), Klein et al (US 1,559,257), Straub et al (US 4,987,940) and Dreher (US 3,158,522) disclose securing material transversely across a web.

Birdsey (US 1,383,255) discloses using scoring wheels to facilitate folding of a longitudinal edges of a sheet during manufacture of a plaster board.

Buttress (US 2,712,169) discloses cutting and shaping edges of a plasterboard using die members 21, 22. The die members are each provided with a scoring blade having an edge "j" to for scores to prevent the sheets from straightening out after the die members are disengaged.

Winkowski (US 3,469,361) discloses a wallboard wherein the sheet has score marks 58 at a tapered region.

Tillisch et al (US 3,233,301) discloses embossing and tapering the longitudinal edge of a wallboard using rollers to form indentations (roughness) at the tapered edge. The indentations (roughness) are adapted to retain joint cement applied to the surface to ensure a joint which is satisfactory and of pleasing appearance.

Walper (US 2,044,234) discloses forming means 20 for forming projections 16 at a tapered region of a wallboard.

Galer (US 4,450,022) discloses making reinforced cement board or reinforced gypsum board using an apparatus including a strippable carrier sheet passing over a table 10.

Buttress et al discloses perforating a sheet for a board. See figure 4.

With respect to method claim 13, the width of Page's supporting member 21 is the same as the width of the imprint. The prior art fails to render obvious using a packing piece having a width of 0.5-2 cm (5-20 mm) and forming an imprint having a width of 10-18 mm in combination with the remaining subject matter of claim 13.

With respect to apparatus claim 19, Page teaches that adhesive instead of staples may be used. However, the prior art fails to render obvious a guide sheet and a bonder follower device having means for accurately bonding and means for roughening and means for pre-marking in combination with the remaining subject matter of claim 19.

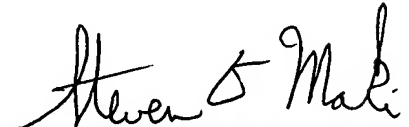
- 4) The remaining references are of interest.
- 5) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Steven D. Maki  
October 29, 2007

  
STEVEN D. MAKI 10-29-07  
PRIMARY EXAMINER